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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/078,405	02/21/2002	Takayuki Onodera	027260-510	5642

7590

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EXAMINER

VY, HUNG T

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 12/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/078,405

Applicant(s)

ONODERA ET AL.

Examiner

Hung T Vy

Art Unit

2828

-- **The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.


- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

  
PAUL IP  
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TECHNOLOGY CENTER 2800

**Applicant Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### **DETAILED ACTION**

1. In response to the communications dated 02/21/2002, claims 1-10 are pending in this application.

### **Acknowledges**

2. Receipt is acknowledged of the following items from the Applicant.

Information Disclosure Statement (IDS) filed on 02/21/2002 and made of record. However, The references cited on the PTOL 1449 form have not been considered because examiner has not received the translation of Foreign Patent document.

### **Foreign Priority**

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 03/01/2000.

### **Claim Rejections - 35 USC § 102**

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of the appropriate paragraph of 35 U.S.C. § 102 in view of the AIPA and H.R. 2215 that forms the basis for the rejections under this section made in the attached Office action:

Claims 1-4, 6-7 and 9-10 are rejected under 35 U. S. C. § 102 (b/e) as being anticipated by Hamakawa et al., U.S. patent No. 5,993,073.

Regarding claim 1, Hamakawa et al. discloses an optical semiconductor module, comprising: an optical semiconductor element; a first lens (14) arranged at a position through which a laser beam radiated from the optical semiconductor element (11) is transmitted; a second lens (23) which is arranged at a position, through which the laser beam transmitted through the first lens (14) is transmitted, and has a laser beam entrance plane which is perpendicular to an optical axis of the optical semiconductor element and is formed in a cylindrical shape (see figs. 1 or 9) ; and an optical fiber (21) arranged at a position at which the laser beam transmitted through the second lens (23) is converged (see figs. 1 or 9).

Regarding claims 2-4, Hamakawa et al. discloses an optical semiconductor module, wherein an end face of the second lens, from which the laser beam is output, is formed in a flat shape (See fig. 2 or column 4, line 45-44), and it is inherent that a refractive index of the second lens differs from a refractive index of a core of the optical fiber by 3 % or less because the fiber (21) has various of refractive index depend on a desired refractive (See column 4, line 13).

Regarding claims 6-7, Hamakawa et al. discloses an optical semiconductor module, wherein a periodic diffraction grating is formed in a core of the optical fiber (See

column 2, line 22-26), a diameter of a core of the optical fiber is enlarged at an end face of the optical fiber on which the laser beam transmitted through the second lens is incident (see fig. 1).

Regarding claims 9-10, Hamakawa et al. discloses an optical amplifier, comprising: an optical semiconductor module (1,2); and an erbium doped optical fiber (100)(See column 5, line 66-67) connected with the optical semiconductor module (1,2) so as to receive a laser beam output from the optical semiconductor module (1,2) in the optical semiconductor module through an optical combining (102) and branching unit (See fig. 10 and column 6, line 1-2), wherein the optical semiconductor module (1,2) comprises an optical semiconductor element (11), a first lens (14) arranged at a position through which the laser beam radiated from the optical semiconductor element (11) is transmitted, a second lens (23) which is arranged at a position, through which the laser beam transmitted through the first lens (14) is transmitted, and has a laser beam entrance plane which is perpendicular to an optical axis of the optical semiconductor element and is formed in a cylindrical shape (see figs. 1 or 9), and an optical fiber (21) arranged at a position at which the laser beam transmitted through the second lens (23) is converged (see fig. 1).

### **Claim Rejections - 35 U.S.C. § 103**

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 8 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Hamakawa et al., U.S. patent No. 5,993,073.

Regarding claims 5 and 8, Hamakawa et al. discloses all limitation of invention except for dimension of second len and film. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to different dimension of len and film, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

#### **Citation of Pertinent References**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patent to Kimura et al. discloses Semiconductor Laser Modulate and Amplifiers Using the Module, U.S. Patent No. 6,618,405.

The patent to Kimura et al. discloses Semiconductor Laser Modulate and Amplifiers Using the Module, U.S. Pub. No. 2002/0118715.

The patent to Kanamaru et al. discloses Heat sink, Semiconductor Laser Device, Semiconductor Laser Module and Raman Amplifier, U.S. Pub No. 2002/0118714.


### Conclusion

7. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Vy whose telephone number is (703) 605-0759 (From 01/07/2004, the phone is (571) 272-1954). The examiner can normally be reached on Monday-Friday 8:30 am - 5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul IP can be reached on (703) 308-3098 (From 01/07/2004, the phone is (571) 272-1941). The fax numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Hung T. Vy  
Art Unit 2828  
November 28, 2003

  
PAUL IP  
SUPERVISORY PATENT EXAMINER  
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Application/Control Number: 10/078,405

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